

FIGURE 1

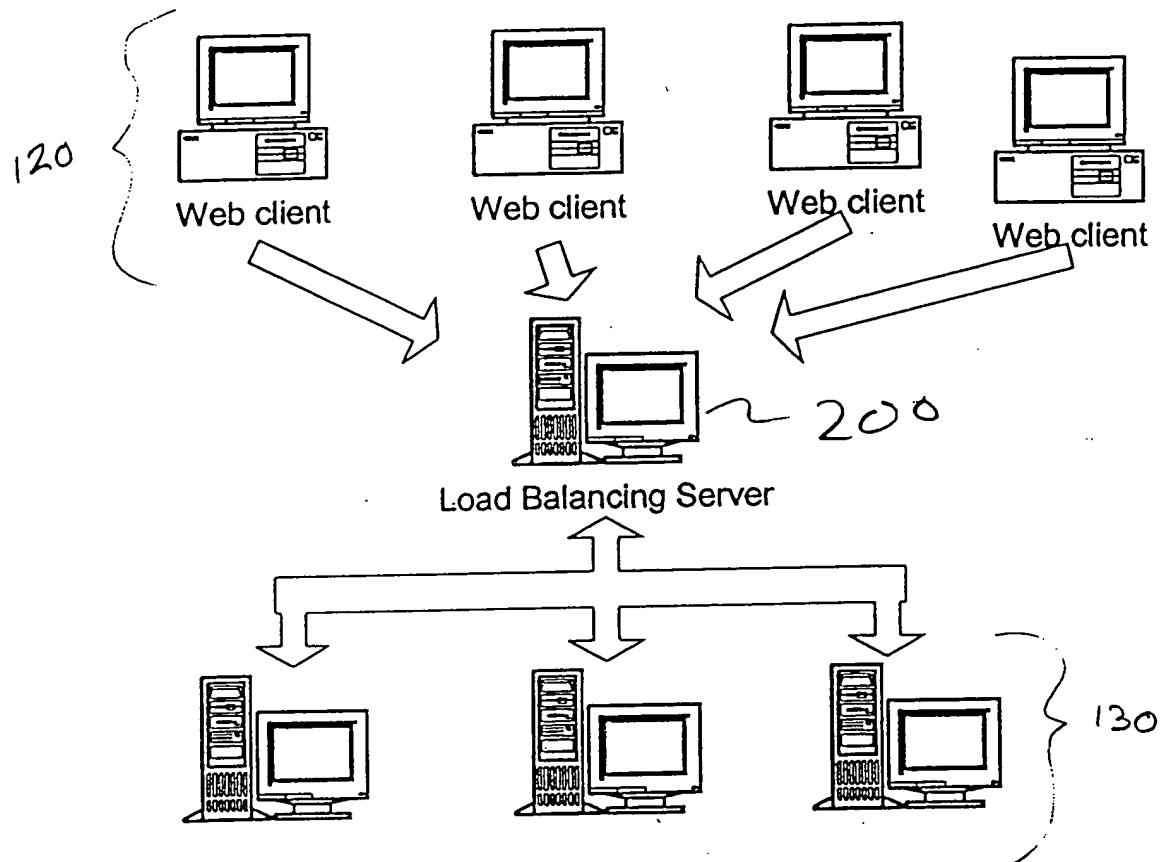


Figure 2 — Machine Scalability Using Load Balancing

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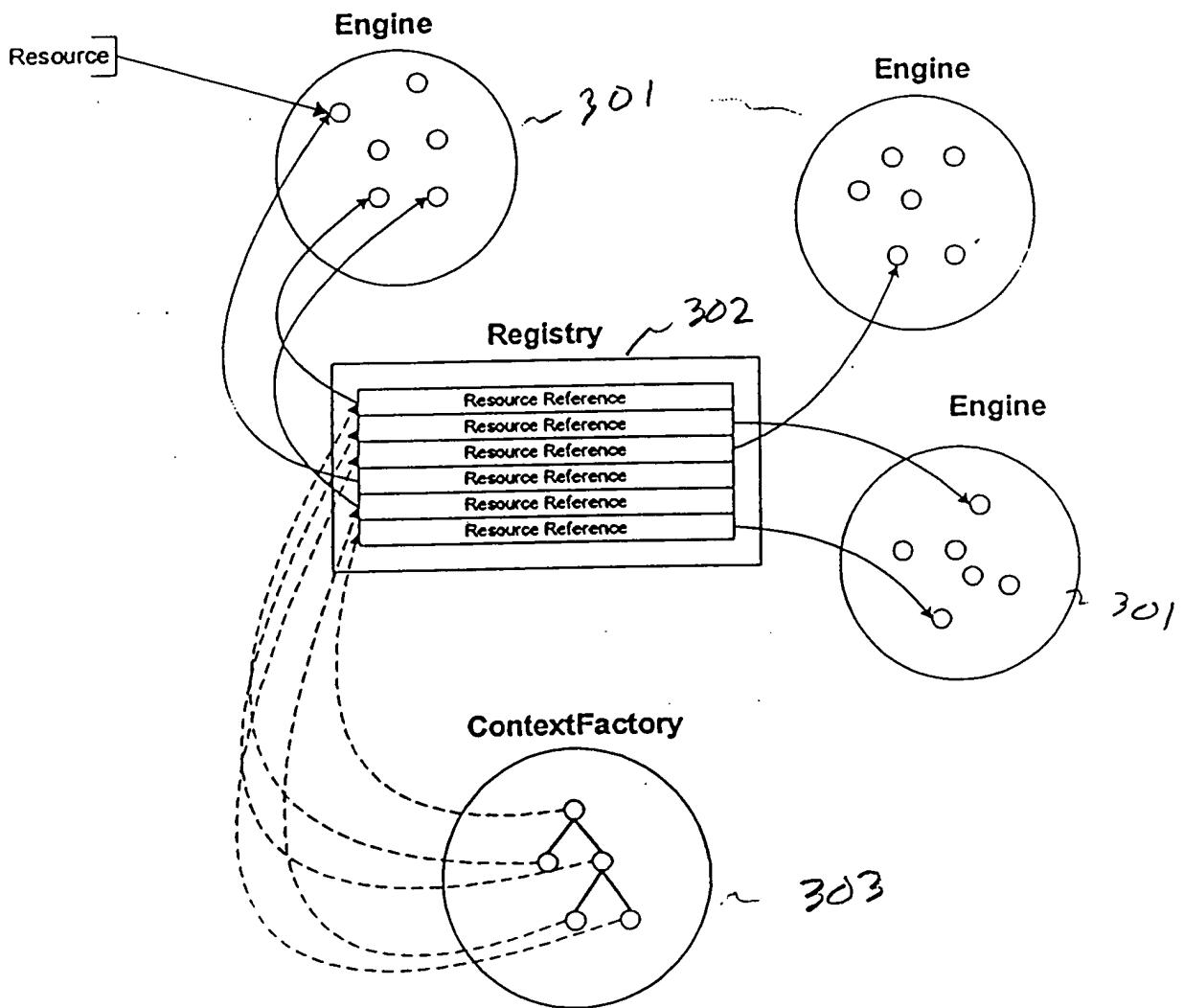


Figure 3 -- Engine/Registry Model

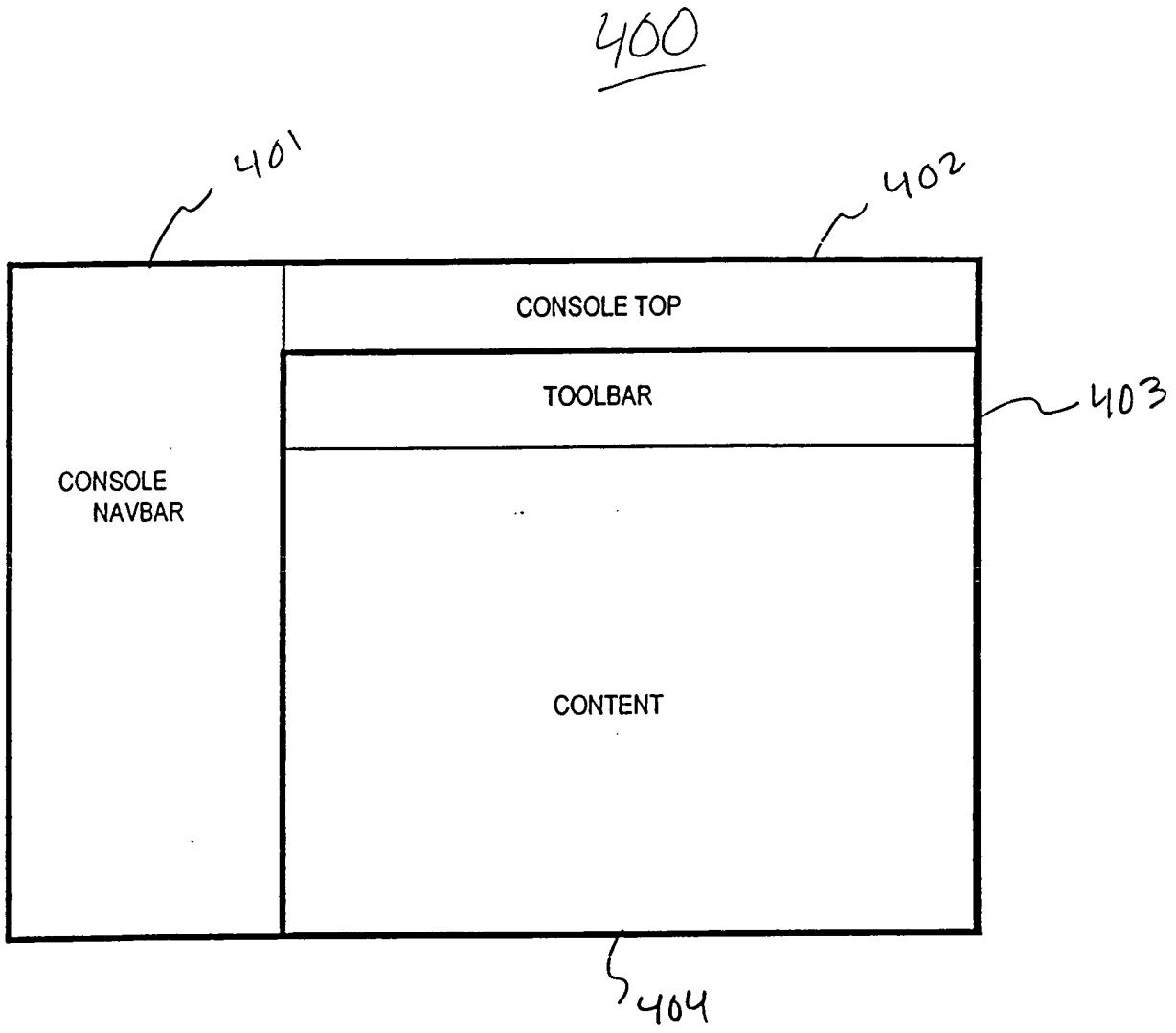


FIGURE 4

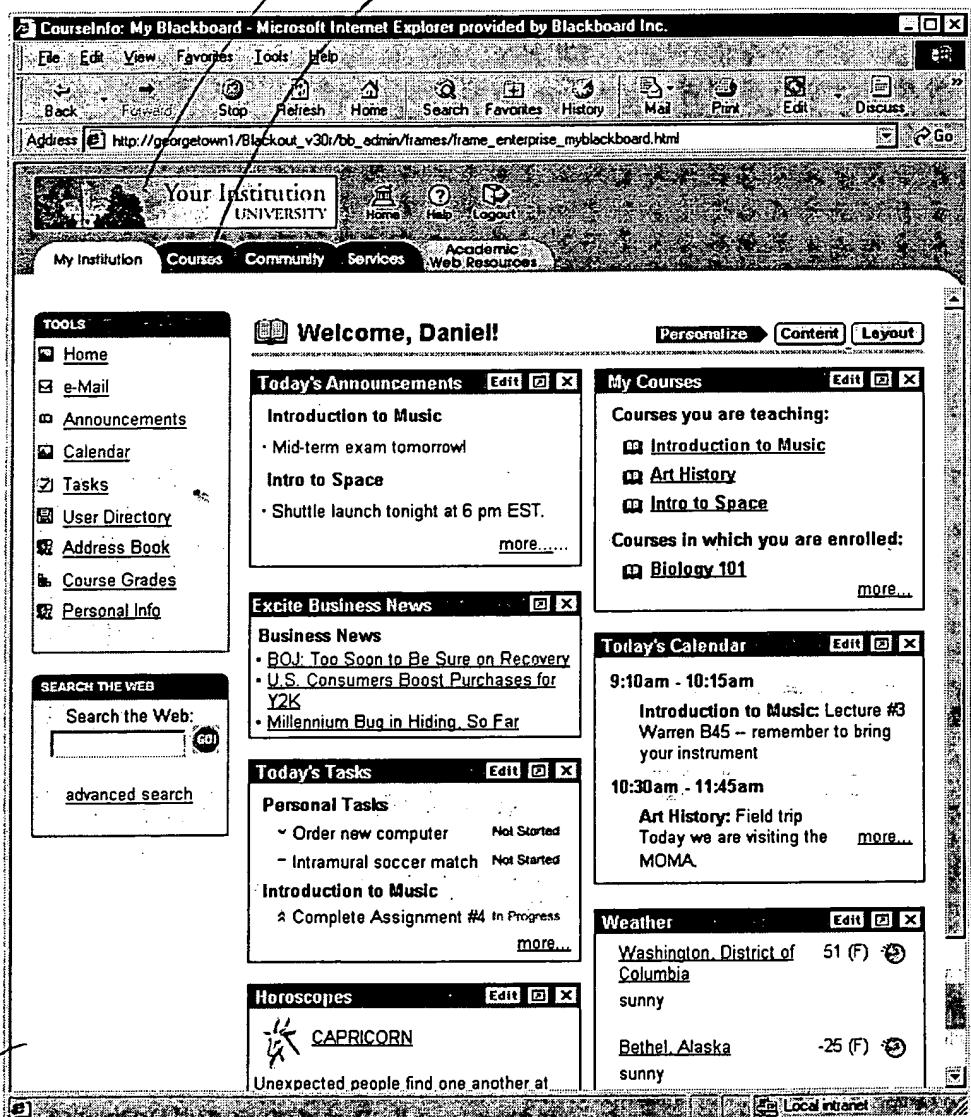


FIG. 5

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2 CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Go

Address http://georgetown1/Blackout_v30/bb_admin/frames/frame_enterprise_courses.html

Your Institution UNIVERSITY

Home Help Logout

My Institution Courses Community Services Academic Web Resources

COURSES > INTRODUCTION TO MUSIC

MUSIC101: Introduction to Music

Introduction to Music

Announcements Course Information Staff Information Course Documents Assignments Communication External Links Student Tools Resources Course Map Control Panel

music 101

Music Theory Basics
- Music Notation
- Key Signatures
- Time Signatures

Announcements

Posted in the Last Two Weeks

Subject: Course Packets Posted by Rachael

The library has printed an additional 25 course packets. If you have up, please drop by the library and purchase one. They are available B45

Today Last 2 Weeks Last Month All

Done

Course Contents

(click on any book to expand)

- Course Information
 - Course Information
 - Staff Information
 - Community
 - Course Documents
 - Key and Time Signatures
 - The Library
 - Final Exam
- Assignments
 - Final
 - Midterm
- Communication
 - External Links
 - Electronic Seminar in Western Civilization
 - Electronic Seminar in William Shakespeare
 - Final Exam
 - Music Theory Basics and Examples
 - The African Experience on the Internet
 - The English Renaissance Library
 - The English Renaissance Periodic Works
- Student Tools

FIG. 7

The screenshot shows a Microsoft Internet Explorer window with the following details:

- Title Bar:** CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig
- Menu Bar:** File Edit View Favorites Tools Help
- Address Bar:** Address [E] [Http://blackout.blackboard.com/course/instructor/index.htm](http://blackout.blackboard.com/course/instructor/index.htm)
- Page Content:**
 - Header:** Your Institution UNIVERSITY
 - Navigation:** My Institution Courses Community Services Academic Web Resources Enterprise Admin
 - User Information:** John Wayne
 - Sidebar (Left):** Announcements, Course Information, Staff Information, Course Documents, Assignments, Communication, External Links, Student Tools, Resources, Course Map, My Blackboard, Search, Logout.
 - Section Header:** Announcements Posted in the Last Two Weeks
 - Announcement 1:** Subject: Class location change. We've moved to room 101. Posted by Fitz McPhail on May 19, 2000.
 - Announcement 2:** Subject: Greeting. Welcome MCCC. Posted by Jonathan Goldstein on May 16, 2000.
 - Announcement 3:** Subject: A new quiz has been posted. To begin taking the quiz titled NYCTA [click here](#). Please answer these questions carefully. Posted by Fitz McPhail on May 10, 2000.
- Taskbar:** Shows various open windows and system icons.

2 CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://blackout.blackboard.com/course/instructor/index.htm

Your Institution UNIVERSITY

My Institution Courses Community Services Academic Web Resources Enterprise Admin

Announcements

Course Information

Staff Information

Course Documents

Assignments

Communication

External Links

Student Tools

Resources

Course Map

My Blackboard

Search Logout

Please check your announcements on a daily basis.
Thanks, Stacey

Subject: Course Map Posted by Jonathan Goldstein on Feb 17, 2000

Welcome to your new course
You can navigate your course by using the map below.

Course Contents

(click on any book to expand)

- Course Information
- Staff Information
- Course Documents
- Assignments
- Communication
- External Links
- Student Tools

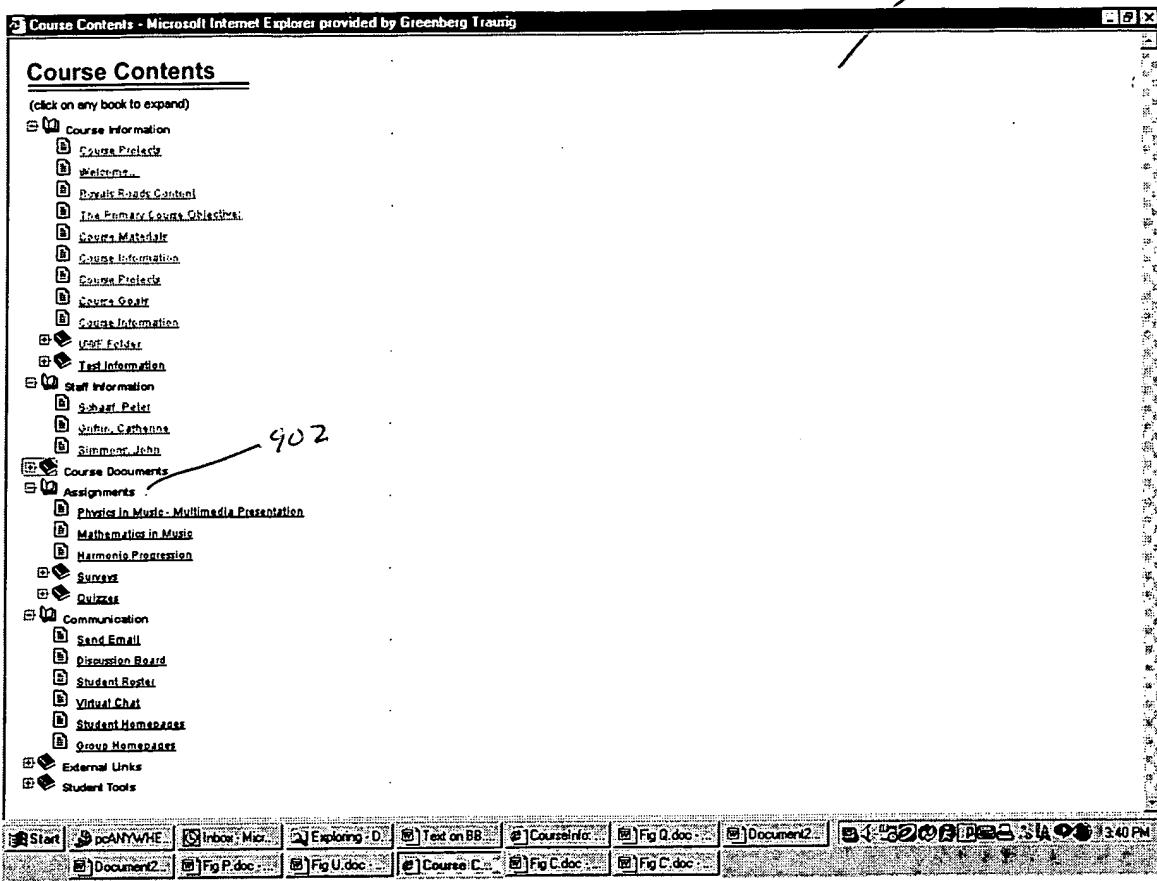
Subject: Posted by Daniel Cane on Feb 8, 2000

WELCOME TO MUSIC 101!

Use the buttons provided on the left side of your screen to navigate the CourseSite. Begin by clicking the COURSE INFORMATION button to view important information before beginning the course.

Today Last 2 Weeks Last Month All Shows 802

Start Do ANYTHING! Inbox Mail Exploring BB Text on BB CourseInfo Pg Q.doc Document2 33 PM



F16.9

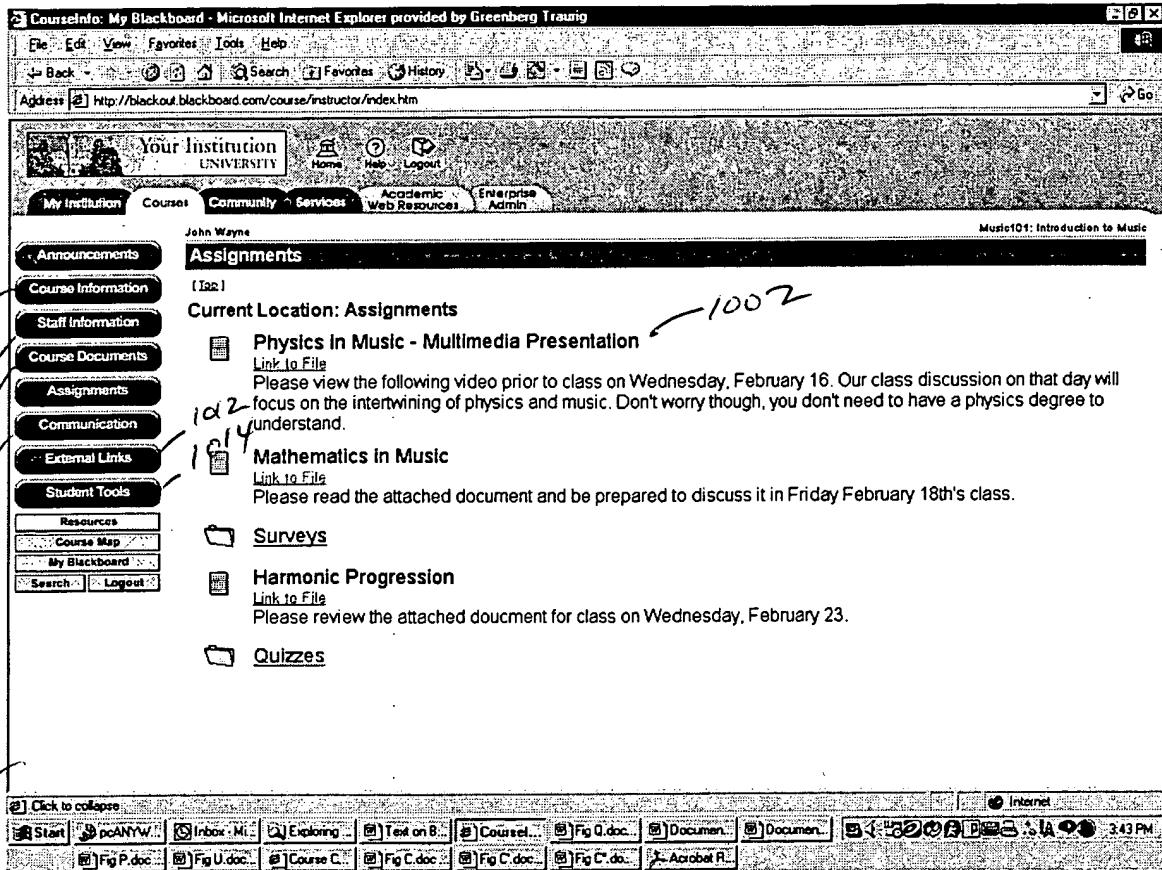


FIG. 10

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://georgetown1/blackout_v30/bb_admin/frames/frame_enterprise_courses.html

Your Institution UNIVERSITY

Home Help Logout

My Institution Courses Community Services Academic Web Resources

COURSES > INTRODUCTION TO MUSIC

MUSIC101: Introduction to Music

Course Documents [Top]

Current Location: Course Documents

Syllabus [Link to File](#)

Session 1 The major scale, has no sharps or flats associated with any of the notes in the scale. Here is the C major scale in the treble staff.
(to display options for the animation below, move your mouse pointer atop the image and click the right mouse button)



Session 1: Lessons

Session 1: An Atlas of Consonance [Link to File](#)
Please print this document and keep it available for fast review.

Session 2: Music Notation

Done Local Internet

1100

5/6/11

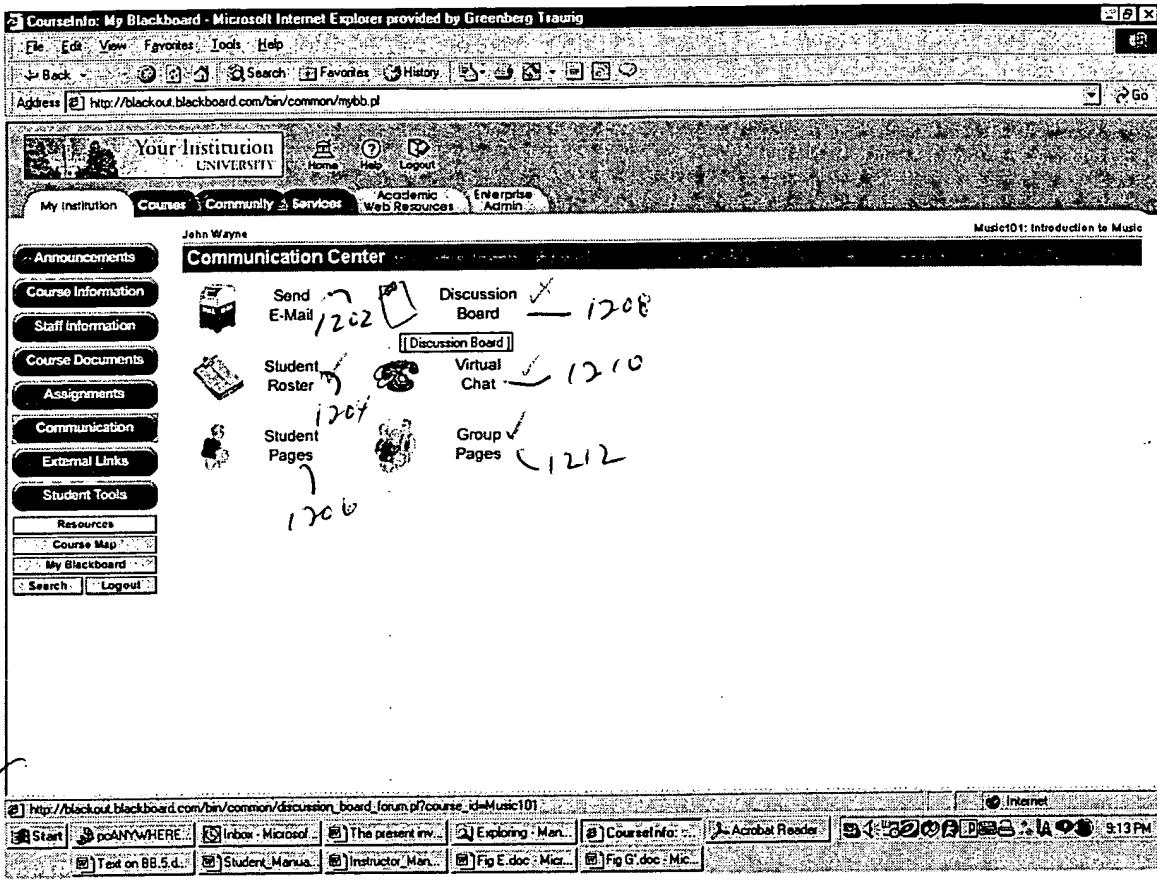


FIG. 12

1300

The screenshot shows a Microsoft Internet Explorer window with the title bar "CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.". The address bar contains the URL "http://blackout.blackboard.com/bb_admin/lames/lame_enterprise_courses.htm". The page header includes "Your Institution UNIVERSITY" and navigation links for "Home", "Help", "Logout", "My Institution", "Courses", "Community Services", "Academic Web Resources", and "Enterprise Admin". Below the header, the page title is "COURSES > INTRODUCTION TO MUSIC". The main content area is titled "Communication Center" and "Discussion Board - Thread View". It displays a list of messages:

Message	Author	Date	Status
This is a top level thread	Cane, Daniel	25-Feb-2000	
This is a reply to your top level thread	Chi, Timothy	26-Feb-2000	New
This is a top level thread	Cane, Daniel	28-Feb-2000	New
Hello World!	Klimenko, Anatoliy	27-Feb-2000	New
Re: Hello World!	Klimenko, Anatolly	28-Feb-2000	New

Navigation buttons at the bottom include "Previous", "Done", and "Internet".

FIG. 13

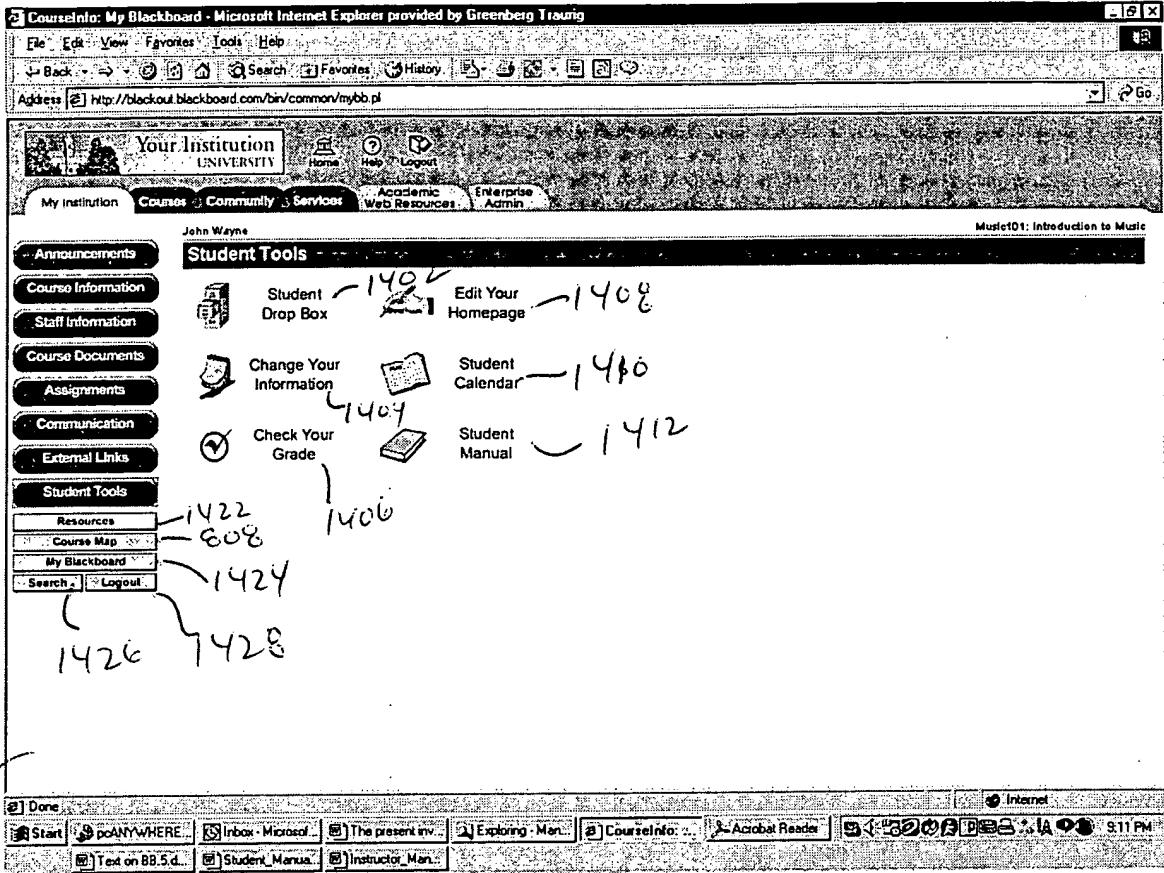


FIG. 14

John Wayne

Music101: Introduction to Music

Student Tools**Student DropBox**

Use your student drop box to submit files to your instructor. Also, your instructor can return your files to you with comments attached.

**Current Files in your DropBox**

Note: If you want to save a file, right click on the Link Name and choose Save Link As

File Name	Link Name	File Size	Status
none	none	none	none

[Remove Files]

**Add File to DropBox**

Click the Browse button to select the file to attach from your computer.
Be sure to specify a linkname for your file.

File to Upload:

Name of Link to File:

(Example: Homework One, Assignment One)

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<input type="file"/>	Browse...
<input type="text"/>	
<input type="button" value="Send File to Instructor"/>	

◀ Back

1580

FIG 15

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Go Address http://blackout.blackboard.com/course/instructor/index.htm

Your Institution UNIVERSITY

My institution Courses Community Services Academic Web Resources Enterprise Admin

COURSES > INTRODUCTION TO MUSIC > CONTROL PANEL

MUSIC101: Introduction to Music Dr. Tim Cane, Instructor

1604

CONTENT AREAS

- Announcements 1616
- Course Documents 1622
- Course Information 1618
- Assignments 1624
- Staff Information 1630
- External Links 1626

1606

COURSE TOOLS

- Course Calendar 1628
- Discussion Board 1638
- Course Tasks 1630
- Virtual Classroom 1636
- Send E-Mail 1632
- Digital Dropbox 1640
- Instructor Library 1634

1608

COURSE OPTIONS

- Course Options 1642
- Course Images 1648
- Course Properties 1644
- Academic Web Resources 1646
- Course Marketing 1646

USER MANAGEMENT

- Add Users 1652
- List/Modify Users 1654
- Remove Users 1656
- Manage Groups 1658

1610

ASSESSMENT

- Assessment Manager 1660
- Online Gradebook 1664
- Pool Manager 1662
- Course Statistics 1666

1612

ASSISTANCE

- Online Manual 1668
- Online Support 1670
- Contact Admin 1672

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Start pcANYW... Inbox - M... Exploring Text on B... Courses... Fig Q.doc... Document... Document... Fig P.doc... Fig U.doc... Fig C.doc... Fig C.doc... Fig C.doc... 3:52 PM

FIG. 16

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help
 Back Search Favorites History
 Address http://blackout.blackboard.com/course/instructor/index.htm

Your Institution UNIVERSITY

My Institution Courses Community Services Academic Web Resources Enterprise Admin

COURSES > INTRODUCTION TO MUSIC > CONTROL PANEL > ANNOUNCEMENTS

Announcements : View Today

Add Announce

VIEW TODAY VIEW LAST 1 DAY VIEW LAST 30 DAYS VIEW ALL

Wednesday, March 15, 2000

1706

Permanent: Final Exam has moved!!!!
 Due to the leaky roof in Warren B45, we have moved the exam to Hollister B14. The exam still begins promptly at 7pm.
 Posted by Timothy Chl

1702

Permanent: Final Exam has moved!!!!
 Due to the leaky roof in Warren B45, we have moved the exam to Hollister B14. The exam still begins promptly at 7pm.
 Posted by Timothy Chl

1704

Wednesday, Mar 15, 2000 : New Floods Threaten Mozambique
 Two days of heavy rain have disrupted the distribution of food to flooded communities in central Mozambique. The main road from the port of Beira to the small town of Save has again been cut. Helicopters were called in on Tuesday to rescue 30 people and sacks of food from vehicles trapped on the road by flood water.
 Posted by Dr. Kangatzi

Wednesday, Mar 15, 2000 : NCAA: Michigan St, Arizona in First-Day Action
 Big Ten Conference champion Michigan State, a Final Four team last season, and Pac-10 winner Arizona are the leading seeds in action when the NCAA Tournament – and March Madness – begins Thursday. Michigan State (25-7) is the top team in the Midwest, a region which features Big 12 champion Iowa State, Atlantic Coast Conference runner-up Maryland, Big East regular season co-champion Syracuse, and traditional powers Kentucky and UCLA. Arizona (26-6) earned the top seed in the West region after completing a sweep of Pac-10 co-champion Stanford last week. Big East tournament winner St. John's, Oklahoma, Louisiana State, Texas and Purdue are the top teams in the region. Michigan State, seeking its first national championship since Magic Johnson led the team to a title in 1979, faces 16th-seeded Valparaiso (19-12) Thursday night in Cleveland. The Spartans lost to Duke in last year's Final Four.

Done

Start pcANYWHERE Inbox - Mac Exploring - D Text on BB... CourseInfo... Fig V.doc... Document2... 3:55 PM
 Document2... Fig P.doc... Fig U.doc... Fig C.doc... Fig C.doc... Fig C.doc...

FIG. 17

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Address http://blockout.blackboard.com/course/instructor/index.htm

Your Institution UNIVERSITY Home Help Logout

My Institution Courses Community Services Academic Web Resources Enterprise Admin

COURSES > INTRODUCTION TO MUSIC > CONTROL PANEL > COURSE INFORMATION

Course Information

Add Item Add Folder 1808

Current Folder = "Course Information"

1 Welcome to Music 101 Cool Image of Animated Musical Notes

2 The Primary Course Objective The primary objective of this course is to provide you, the student, an elementary knowledge of the basic elements of music theory including the grand clef, understanding time and note values and mastering the scales as well as their associated key signatures.

3 Course Materials Complete Materials List (Word document) Some of the materials in this course have supporting visual aids created for the Macromedia FLASH plug-in. These aids provide visual reinforcement of the lesson materials but are not a required element of the course. If you do not see an animated Welcome message when you first open this course, your browser does not have the FLASH plug-in installed. If you would like to experience the multimedia lesson aids click here to install the FLASH plug-in.

1806 1802 1804

Modify Remove Modify Remove

800

Start pcANYWHERE Inbox - Mic. Exploring D: Ted on BB CourseInfo Fig V.doc Document2 Fig C.doc Fig C-.doc Internet 3:56 PM

Document2 Fig P.doc Fig U.doc Fig W.doc Fig C.doc Fig C-.doc

Fig. 18

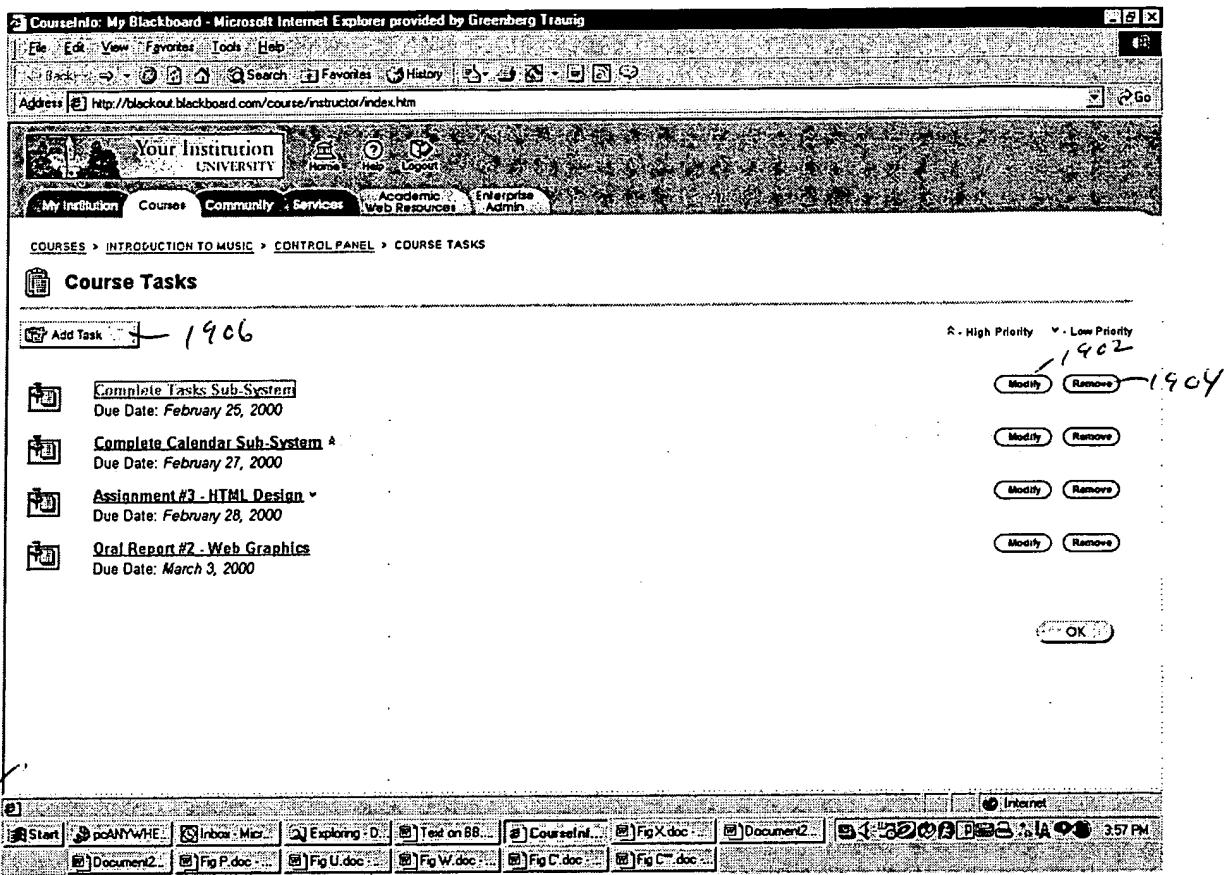


Fig 19

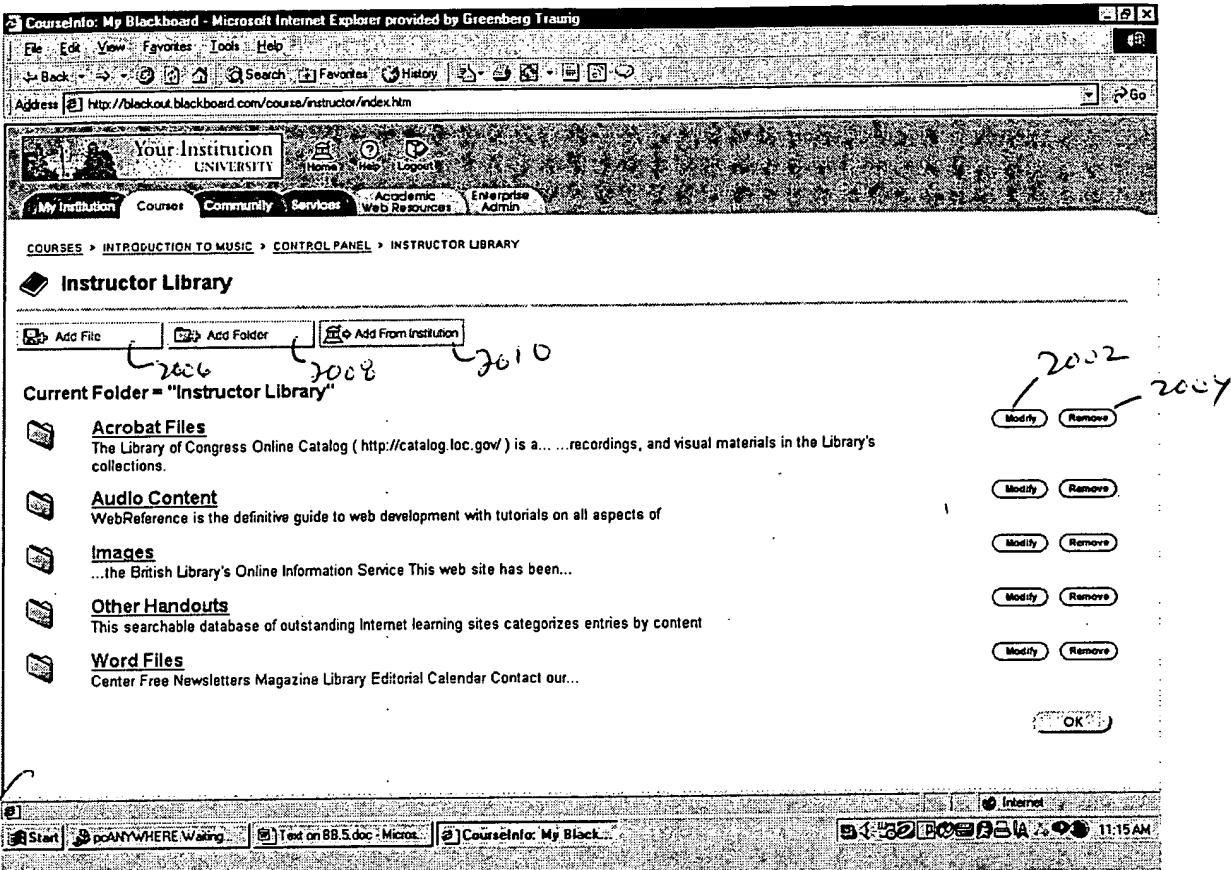


FIG. 20

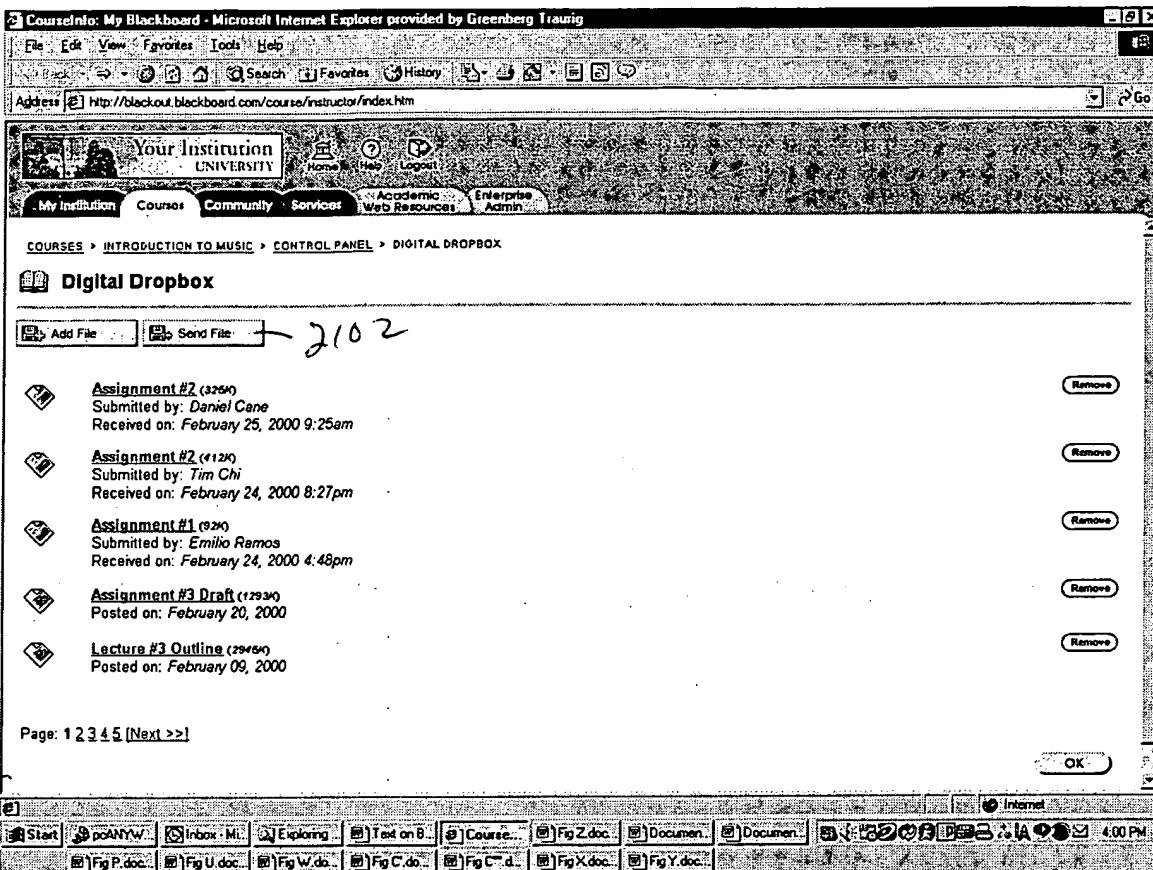


Fig. 21

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://georgetown1/Blackout_v30r/bb_admin/frames/frame_enterprise_courses.html Go

Your Institution UNIVERSITY

Home Help Logout

My Institution Courses Community Services Academic Web Resources

COURSES > INTRODUCTION TO MUSIC

MUSIC101: Introduction to Music

Course Gradebook

Students whose last names begin with: Show All

Items that are grouped by: Show All Go

Completed	Participation	Space 301-C Quiz	Assignment #1	Total Points
- no info	Participation	Quiz	Assignment	
- taken, but ungraded	Edit	Edit	Edit	
Arnold, Jeremy	Edit	-	-	0
Baggins, T	Edit	80	50	315
Bell, Norman	Edit	-	10	10
Cane, Jon	Edit	72	25	251
Chasen, Michael	Edit	-	25	25
Chi, Timothy	Edit	92	35	311
Clark, Andrea	Edit	100	20	285
Clark, Jim	Edit	75	-	220
Cox, Meg	Edit	-	25	25
Davies, Greg	Edit	-	-	0
wilkowski, francis	Edit	-	10	10
Points Possible	100	35	50	335

Local intranet

2200

FIG. 22

COURSES > INTRODUCTION TO MUSIC > CONTROL PANEL > COURSE STATISTICS > REPORT

Course Statistics

Statistics Generated on Thursday, February 24, 2000 11:26:28 AM

Note: You may have to reload/refresh this page for the images to be correct.

Total Number of Accesses per Area — 2302

Number of Accesses over Time — 2304

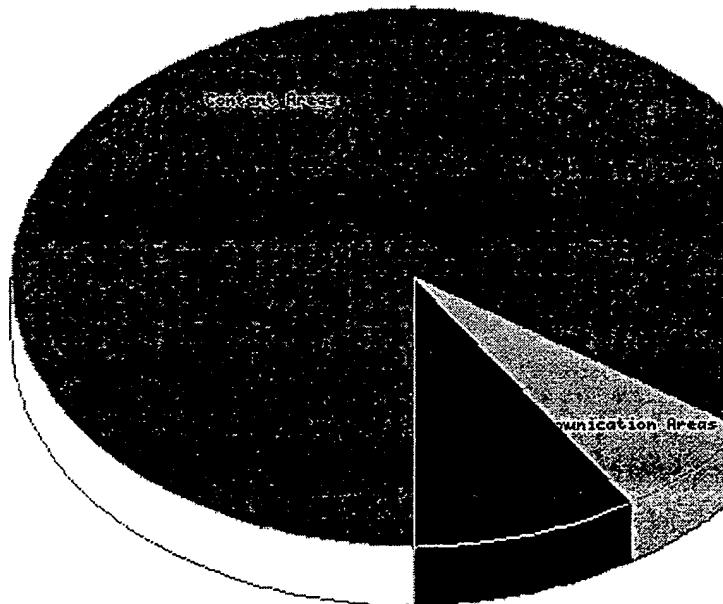
User Accesses per Hour of the Day — 2306

User Accesses per Day of the Week — 2308

Total Accesses by User — 2310

Total Number of Accesses per Area

Area Name	Hits	Percent
Content Areas	139	83.2 %
Communication Areas	10	5.98 %
Group Areas		0 %
Student Areas	15	8.98 %
Total	167	100 %



Number of Accesses over Time

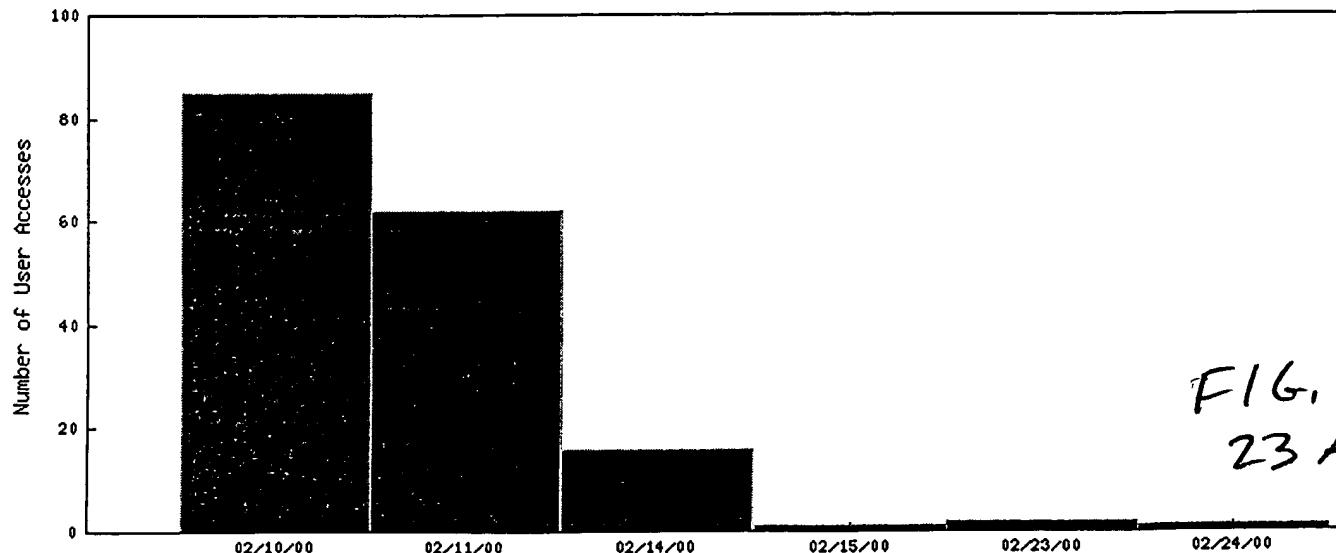
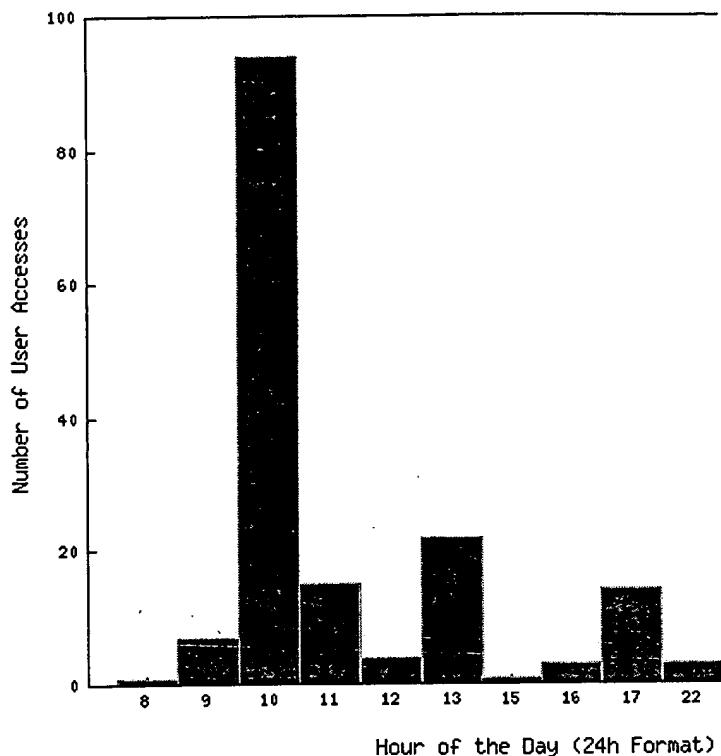


FIG.
23 A

User Accesses by Hour of the Day

Hour of The Day	Hits	Percent
8	1	0.59 %
9	7	4.19 %
10	94	56.2 %
11	15	8.98 %
12	4	2.39 %
13	22	13.1 %
15	1	0.59 %
16	3	1.79 %
17	14	8.38 %
22	3	1.79 %
23	3	1.79 %
Total	167	100 %

**User Accesses by Day of the Week**

Day of The Week	Hits	Percent
Monday	16	9.58 %
Tuesday	1	0.59 %
Wednesday	2	1.19 %
Thursday	86	51.4 %
Friday	62	37.1 %
Total	167	100 %

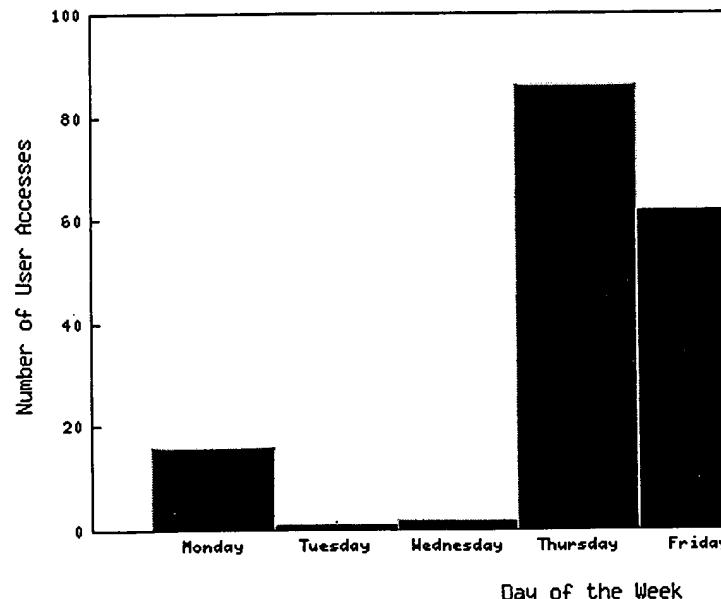


FIG.
23B

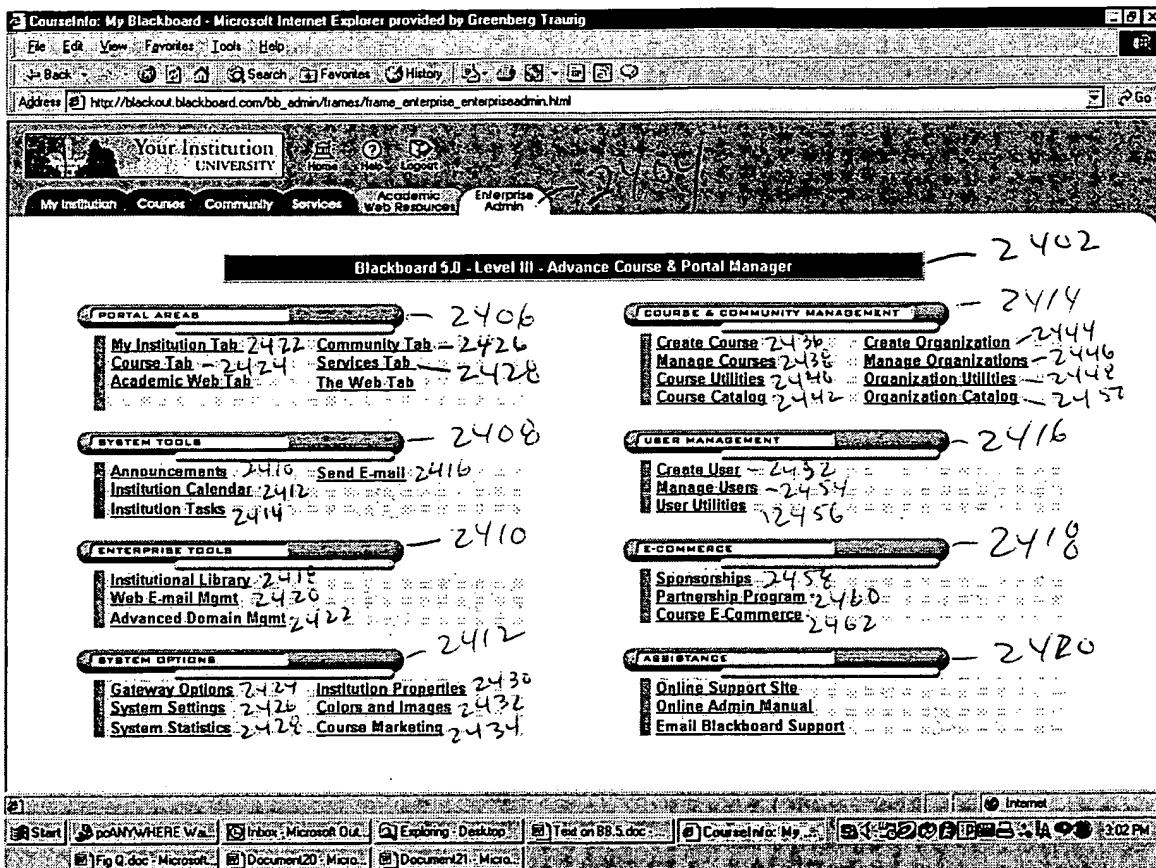


FIG. 24

2500

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Go

Address http://georgetown1/Blackout_v30/bb_admin/frames/frame_enterprise_community.html

Your Institution UNIVERSITY Home Help Logout

My Institution Courses Community Services Academic Web Resources

COMMUNITY SEARCH

Search the Web: Add

[advanced search](#)

OFF-CAMPUS COMMUNITIES

- The Arts**
Books, Writing, Art, Poetry
- College**
Greek, Academics, Nightlife
- Cultures**
Race Relations, Foreign Students
- Fun & Games**
Humor, Video Games, Gaming
- Health & Fitness**
Working Out, Nutrition
- Jobs**
Career, Internships, Work Study
- Money**
Finance, Investing, Insurance
- Movies**
Reviews, Celebs, Filmmaking
- Music**
Videos, News, Bands
- Personal & Misc.**
The rest of it
- Politics**

Club List: Add

Clubs of which you are a Member:

- College Democrats**
Meet with other Democrats to fight the Republicans
- Sigma Alpha Mu**
Greek Life
- Football**
- Intramural Basketball**
Join a team every Tuesday night
- Math Club**
If you are good at math join us. No Calculus required (joke).

Discussion Boards: Add

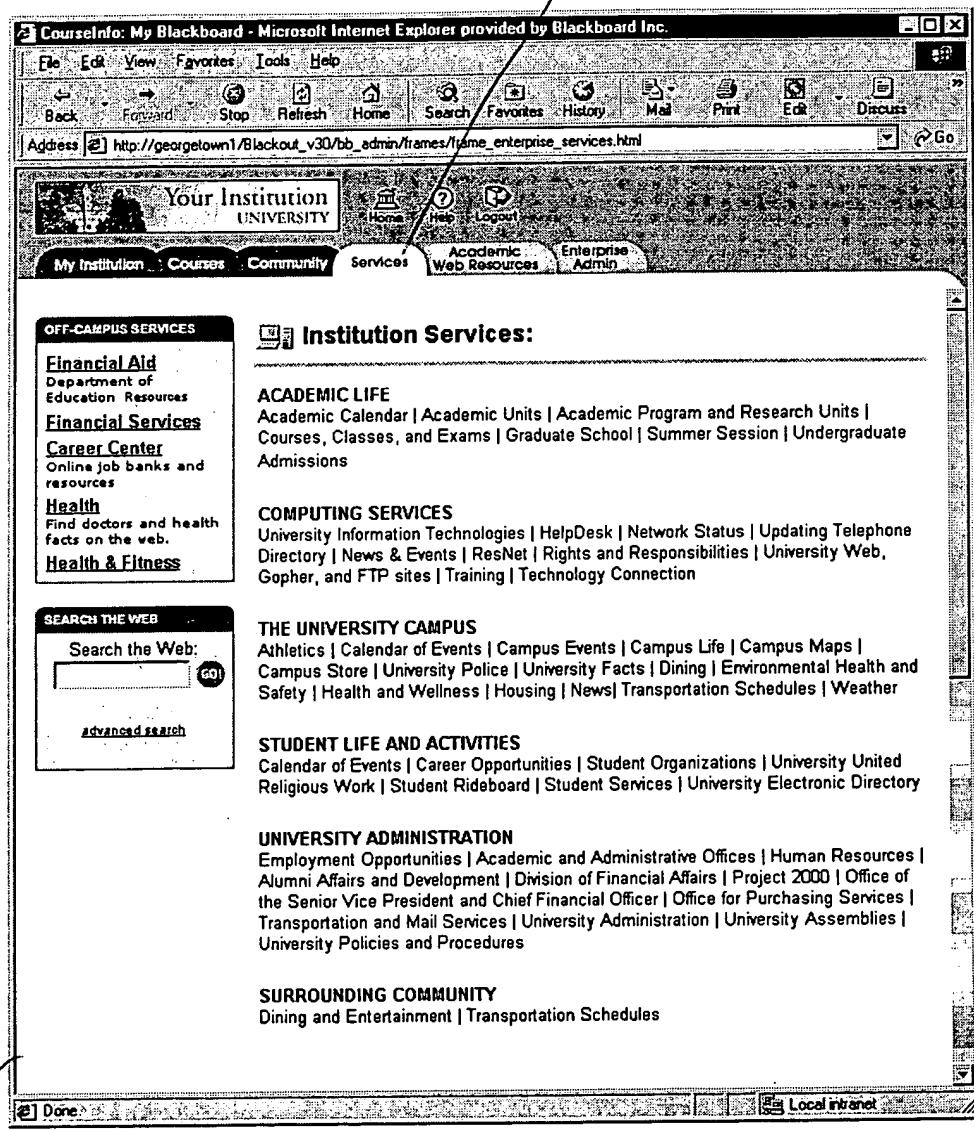
- Housing**
Looking for a roommate, or have housing questions. Post here.
- Greek Life**
Greek, Academics, Nightlife
- Ride Board**
Find a ride home or offer a ride.
- Study Groups**
Humor, Video Games, Gaming
- College Sports**
Working Out, Nutrition
- Teacher's Lounge**
Where teachers can chat
- Home Help**
Need help from home
- Social Life**
Party hosted by Letts Hall at Quigley's Midtown.
- Politics**
Let's get those darn Independents.
- Intramurals**
Join or start your own intramural sports team.

Club Catalog:

- **Theater and the Arts**
- **Business & Investing**
- **Christianity**
- **Computers & Internet**
- **Cooking, Food & Wine**
- **Entertainment**
- **Health, Mind & Body**
- **History**
- **Home & Garden**
- **Literature & Fiction**
- **Oprah**
- **Parenting & Families**
- **Professional & Technical**

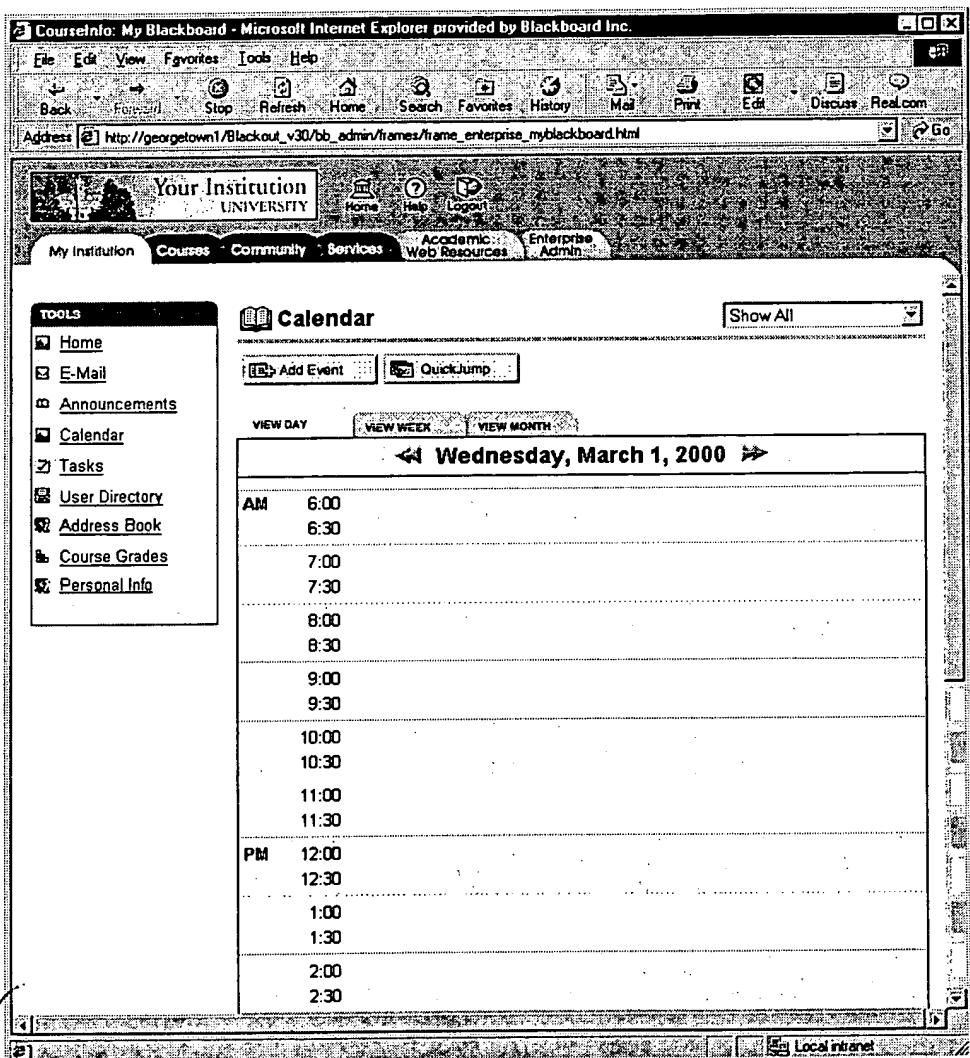
Done Local internet

FIG. 25



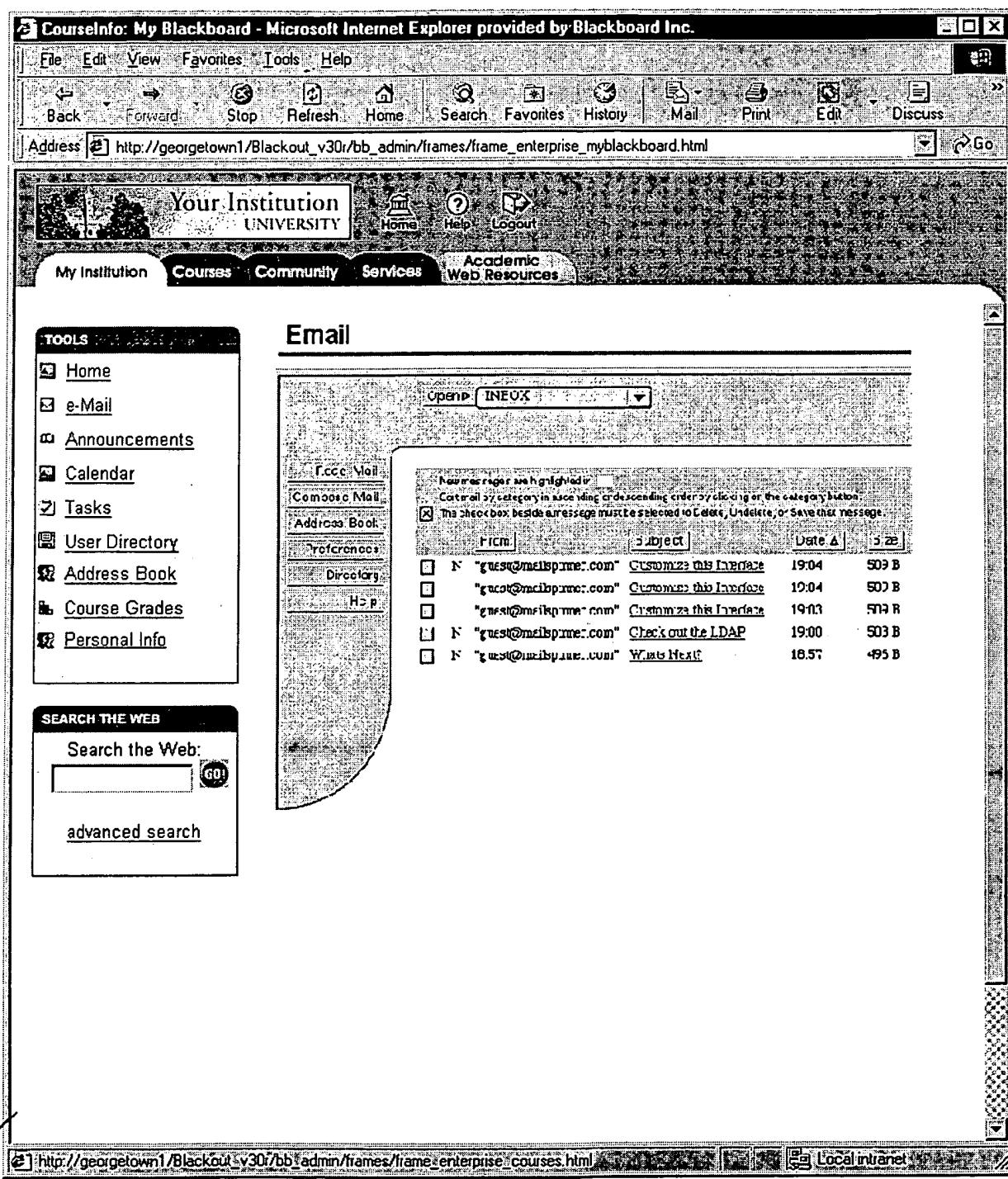
2600

FIG. 26



2700

FIG. 27



340

FIG. 28

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blackout.blackboard.com/bb_admin/items/frame_enterprise_enterprisadmin.html

Your Institution UNIVERSITY

My Institution Courses Community Services Academic Web Resources Enterprise Admin

ADMINISTRATION PANEL > CREATE NEW COURSE

Create A New Course

1 Course Information

Course Name:

Course ID:

Description:

2 Course Design

Button Type: Pattern

Button Shape: Rectangular Rounded Ends Rounded Corners

Button Style: COLORFUL GALLARY OF BUTTONS Beige Stone
Black Loco Blue Brick Blue Concrete Blue Coral Blue Loco

3 Course Options

Select Type: Subject Area: SELECT A SUBJECT AREA Discipline: General

Guest Access: Guests are allowed to visit this course. Guests are not allowed to visit this course.

Available: Yes No

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blackout.blackboard.com/bb_admin/items/frame_enterprise_enterprisadmin.html

Start pcANYWHERE Web... Inbox - Microsoft Out... Exploring - Desktop Test on BB5.doc - Micro... CourseInfo: My Black... Fig 0.doc - Microsoft Word...

FIG. 29

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blackout.blackboard.com/bb_admin/items/frame_enterprise_enterprisadmin.html

Your Institution UNIVERSITY

My Institution Courses Community Services Academic Web Resources Enterprise Admin

Guest Access: Guests are allowed to visit this course. Guests are not allowed to visit this course.

Available: Yes No

Select Course Catalog Category: Uncategorized

Course Cartridge: (optional) Please enter your Course Cartridge Access Key:
If you do not have an Access Key, please visit <http://cartridges.blackboard.com> to locate a Course Cartridge.

Instructor: Instructor ID: [List Users](#) Create New Instructor

4 Submit

Click "Submit" to finish. Click "Cancel" to end this process.

Cancel Submit

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blackout.blackboard.com/bb_admin/items/frame_enterprise_webresources.html

Start pcANYWHERE Web... Inbox - Microsoft Out... Exploring - Desktop Test on BB5.doc - Micro... CourseInfo: My Black... Fig 0.doc - Microsoft Word... Document20 - Micro... Document21 - Micro... Document22 - Micro...

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blockout.blackboard.com/bb_admin/frames/frame_enterpriseadmin.html

Your Institution UNIVERSITY Home Logon

My Institution > Courses > Community > Services Academic Web Resources Enterprise Admin

ADMINISTRATION PANEL > CREATE USER

Create User

1 Personal Information

'First Name: []

'Middle Name: []

'Last Name: []

'E-mail: []

Student ID: []

2 Account Information

'User Name: []

'Password: []

'Verify Password: []

3 Other Information

Start [] 318 PM

Inbox - Microsoft Outlook [] Exploring - Desktop [] Test on BB5.doc [] CourseInfo: My... [] Fig Q.doc - Microsoft Word [] Document20 - Microsoft Word [] Document21 - Microsoft Word [] Fig P.doc - Microsoft Word [] Fig S.doc - Microsoft Word []

FIG.
30A

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Tools Help

Back Search Favorites History Go

Address http://blockout.blackboard.com/bb_admin/frames/frame_enterpriseadmin.html

Your Institution UNIVERSITY Home Logon

My Institution Courses Community Services Academic Web Resources Enterprise Admin

Gender: Male Female

Birthday: January , 19

Education: Undergraduate Student

Company: []

Department: []

Job Title: []

Address: []

Address: (cont) []

City: []

State / Province: []

Zip / Postal Code: []

Country: []

Web Site: []

Home Phone: []

Work Phone: []

Start [] 3:18 PM

Inbox - Microsoft Outlook [] Exploring - Desktop [] Test on BB5.doc [] CourseInfo: My... [] Fig Q.doc - Microsoft Word [] Document20 - Microsoft Word [] Document21 - Microsoft Word [] Fig P.doc - Microsoft Word [] Fig S.doc - Microsoft Word []

3cc0

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Greenberg Traurig

File Edit View Favorites Help

Back Search Favorites History Go

Address: http://blackout.blackboard.com/bb_admin/frames/frame_enterprise_enterprisadmin.html

Your Institution
UNIVERSITY

Home Help Logout

My Institution Courses Community Services Academic Web Resources Enterprise Admin

Work Phone: _____

Work Fax: _____

Mobile Phone: _____

4 Role and Availability

Primary Institution Role: Student

Administrative User Role:
If you would like user to have an administrative role, please select the role:
(Note: Administrative Access grants the user access to the System Administration Control Panel)

None System Admin System Support
 Course Creator Account Administrator

5 Submit

* Required Field for Form Entry

Click "Submit" to finish. Click "Cancel" to end this process.

Cancel Submit

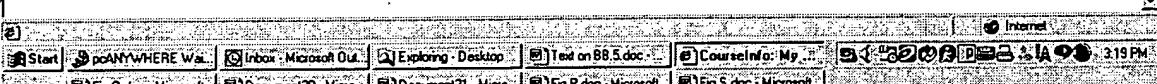


FIG 30B

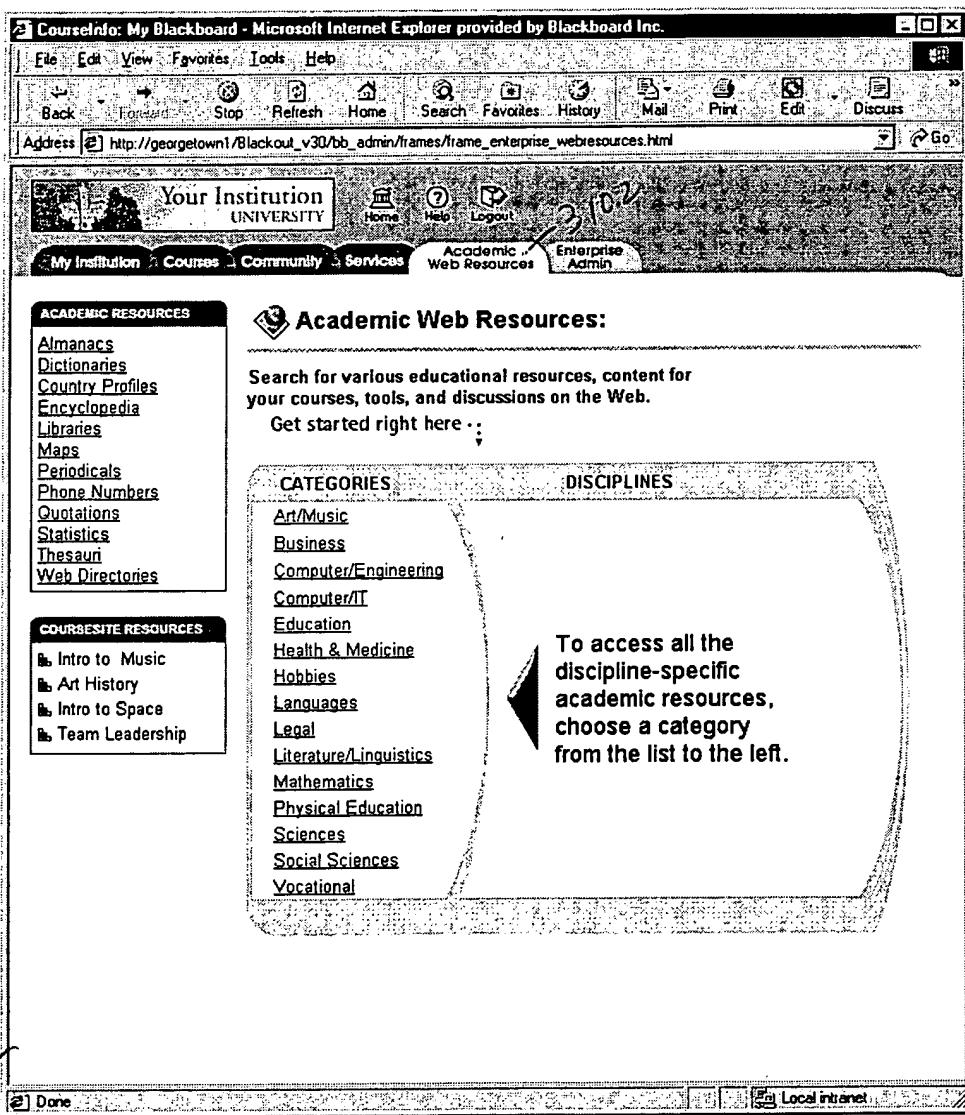


FIG. 31

CourseInfo: My Blackboard - Microsoft Internet Explorer provided by Blackboard Inc.

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://georgetown1/Blackout_v30/bb_admin/frames/frame_enterprise_webresources.html Go

Your Institution UNIVERSITY

Home Help Logout

My Institution Courses Community Services Academic Web Resources Enterprise Admin

Social Sciences and Social Study : History

News

Vietnam Starts Marking 1975 Battle Victories
Mar 10 - The Washington Times
HANOI - Vietnamese started celebrating yesterday the 25th anniversary of the victory of communist troops in the key town of Ban Me Thuot - a battle that marked the beginning of the end of the Vietnam War. [FULL STORY](#)

U.S. must support democracy - not just the military - in Colombia
Mar 10 - The Washington Times
The March 7 article "Homes, land abandoned as civil war continues" makes reference to how Colombia's civil war between leftist guerrillas and government security and paramilitary groups has expanded to the point where noncombatants are being affected. [FULL STORY](#)

F16s needed
Mar 10 - The Dominion
The RNZAF needs the most modern aircraft available to maintain the skills necessary for its attack and strike capability, not only for defence but to assist our close allies. [FULL STORY](#)

Reunion plain sailing
Mar 10 - Waikato Times
A perfect landing started a perfect reunion when World War II pilot Dusty Miller watched an immaculately rebuilt 1940 Hawker Hurricane touch down at Wanaka Airport yesterday. [FULL STORY](#)

Poor site testing threatens heritage
Mar 10 - The Irish Times
Archaeological treasures in the Republic are at risk of being destroyed because of inadequate site-testing by archaeologists, according to a report published yesterday.

Research Center

Periodical Search:

Boolean Search Natural Language Search

Search all articles Search only this discipline

Browse by Topic:

[Early National Period](#)
[Great Depression](#)
[Jacksonian America](#)
[Labor Movement](#)
[The Cold War](#)
[Vietnam War](#)
[World War I](#)
[World War II](#)

Web Search:

go!

Communities

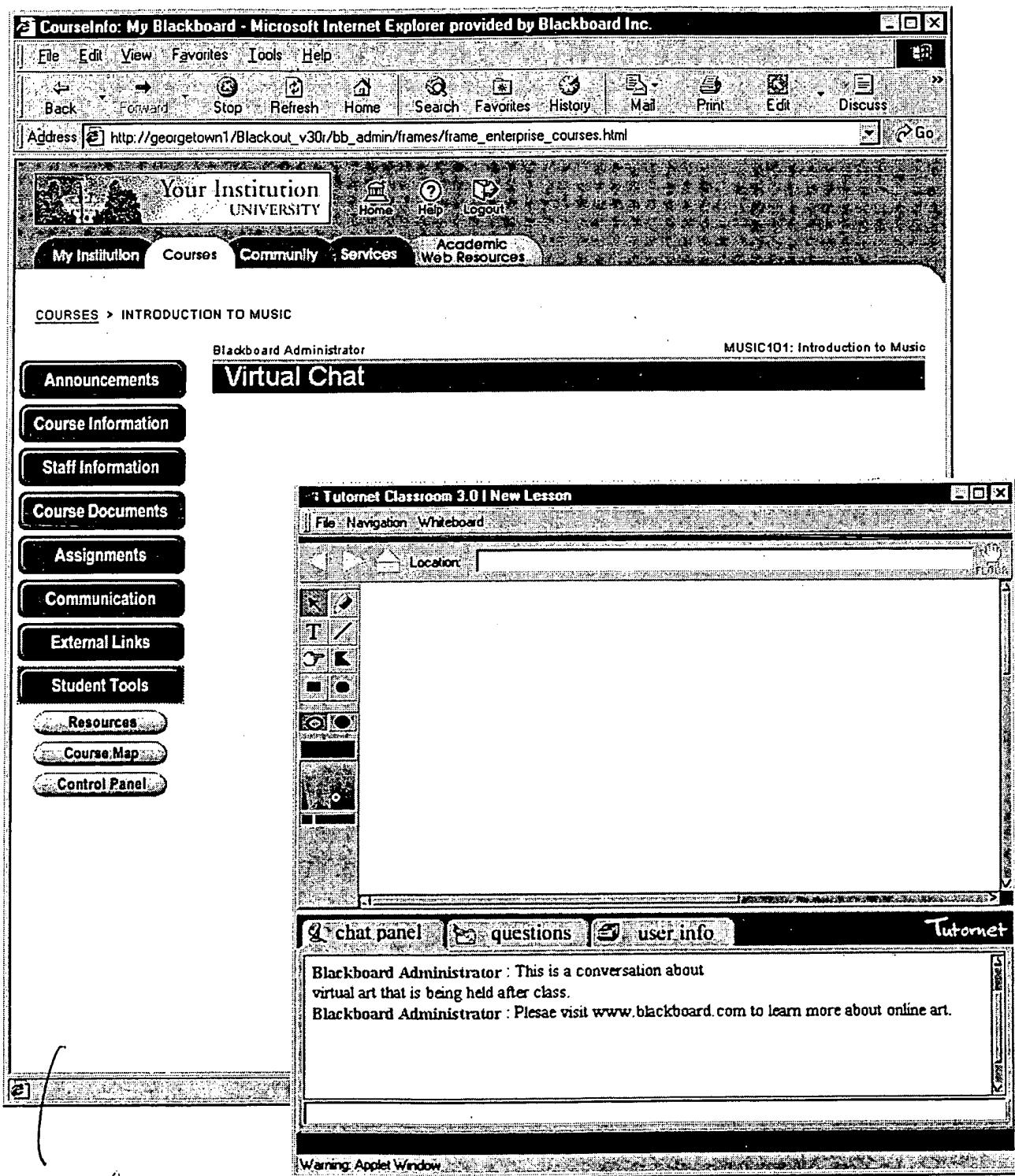
Social Sciences and Social Study for Students

Discussion Boards
[Learn about my civilization](#)

Done Local Intranet (Mixed)

3300

FIG. 32



3300

FIG. 33

Linking to the E-Commerce Server

Myserver.blackboard.com

100

The link to butter passes the following
information:

Ready to checkout?	100
OK	block 120 ?
name	Name of the purchaser
address_1	
address_2	
city	
state	
zip	
country	

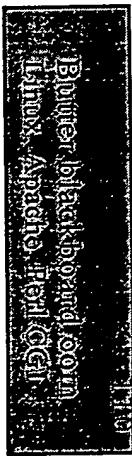
price: price in USD that the user is being
asked to pay

order-id: null if butter should generate an
order number (default)

order-descr: Text description of what the
user is buying.

url: the location the referring server that
butter should return the user to after the
payment process is complete

hyperlink

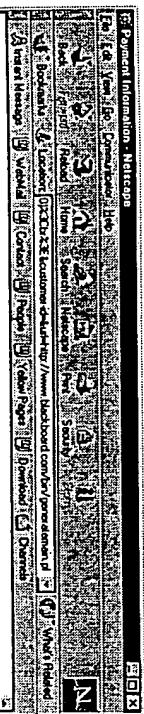


Figure

34

First E-Commerce Screen Display

Butter.blackboard.com



Blackboard.com™

About Blackboard.com · Help & Support · Terms of Use · Privacy Policy

Bb

Payment Information

The fourth step is to fill in the required payment information and click "Purchase". After a few seconds, you will be given a screen confirming your payment. Please note that Blackboard.com uses a secure connection for its online transactions, so there is no need to worry about entering your credit card number online.

Prices listed below are in United States dollars.

Purchase Summary

Chosen Services:	Registered Course: ssdssdssdssd2427348— (\$10)
Purchase Number:	9912401104652
Total Price:	\$100.00

Credit Card Information

Credit Card Type:	MasterCard
Card Number:	4444 3333 2222 1111 (mmyy)
Expiration Date:	01/01
Name as it appears on card:	Dave Young
Billing address:	123 Main Street Anytown, USA 12345

The Chosen services and price displayed are passed in from the previous screen.

The unique order number displayed is dynamically generated by the server.

Accepts VISA, MC, Diner's Club, JCB and Carte Blanche (but not Amex)

Whatever user info is available is populated from the data passed from the previous page.

The look and feel of this plate (and all butter e-commerce pages) can be modified by an HTML template. This template is selected as one of the script parameters.

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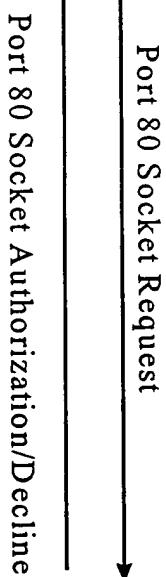
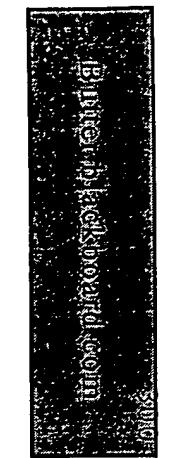
7560 →

7570 →

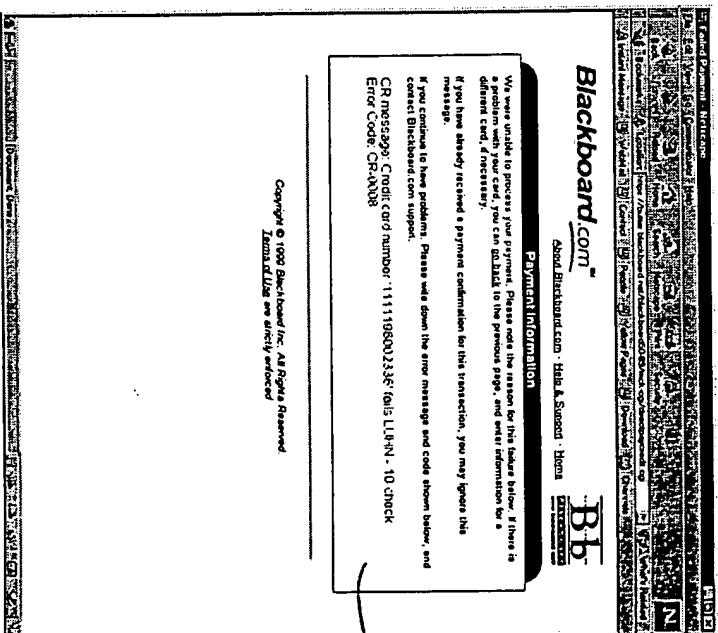
7580 →

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Authorization Process



- The authorization process takes a minute or so.
- If the card is rejected, a page like the one at right is displayed.
- If the card is accepted, the payment goes through, and the page on the next slide is shown.



Figure

36

350
316
320

Attorney Docket Number: 27578.012500

Second E-Commerce Screen Display

Butter.blackboard.com

The screenshot shows a payment confirmation page. At the top, it says "Payment Information" and "Blackboard.com". Below that is a "Confirmation Details" section with fields for "Chosen Service", "Purchase Number", "Credit card", and "Total Price". A large button at the bottom says "YOU MUST CLICK HERE TO RECEIVE THE SERVICES YOU PURCHASED".

Payment Information

Blackboard.com

Confirmation Details

Chosen Service: Registration Course: sessions92-321348... (1100)
Purchase Number: 98121401104652
Credit card: BACKOCOR (Partial number shown for security)
Total Price: 100.00

YOU MUST CLICK HERE TO RECEIVE THE SERVICES YOU PURCHASED
[Coming to Courses](#)

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Links on this page are strictly prohibited.

Payment is authorized and queued at Cybershield,
Inc for processing.

The payment will go through and appear in
Blackboard's Cybershield account within 12
hours.

There is no way that the user can back out at this
point without Blackboard issuing a manual
refund.

No services are provided yet. The user must
follow the link at the bottom of the page, or he
will receive nothing for his money.

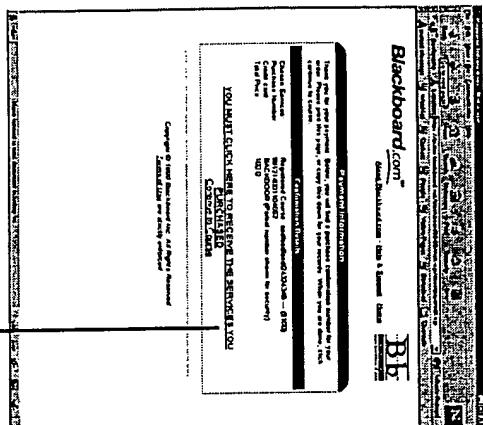
All links on this page are disabled except the one
that says "YOU MUST CLICK HERE". This
prevents users from failing to get their orders
filled.

A authorization code is calculated by the script as
a secure hash of the purchase price, the order id,
and a secret number.

Figure

Returning to the Originating Server

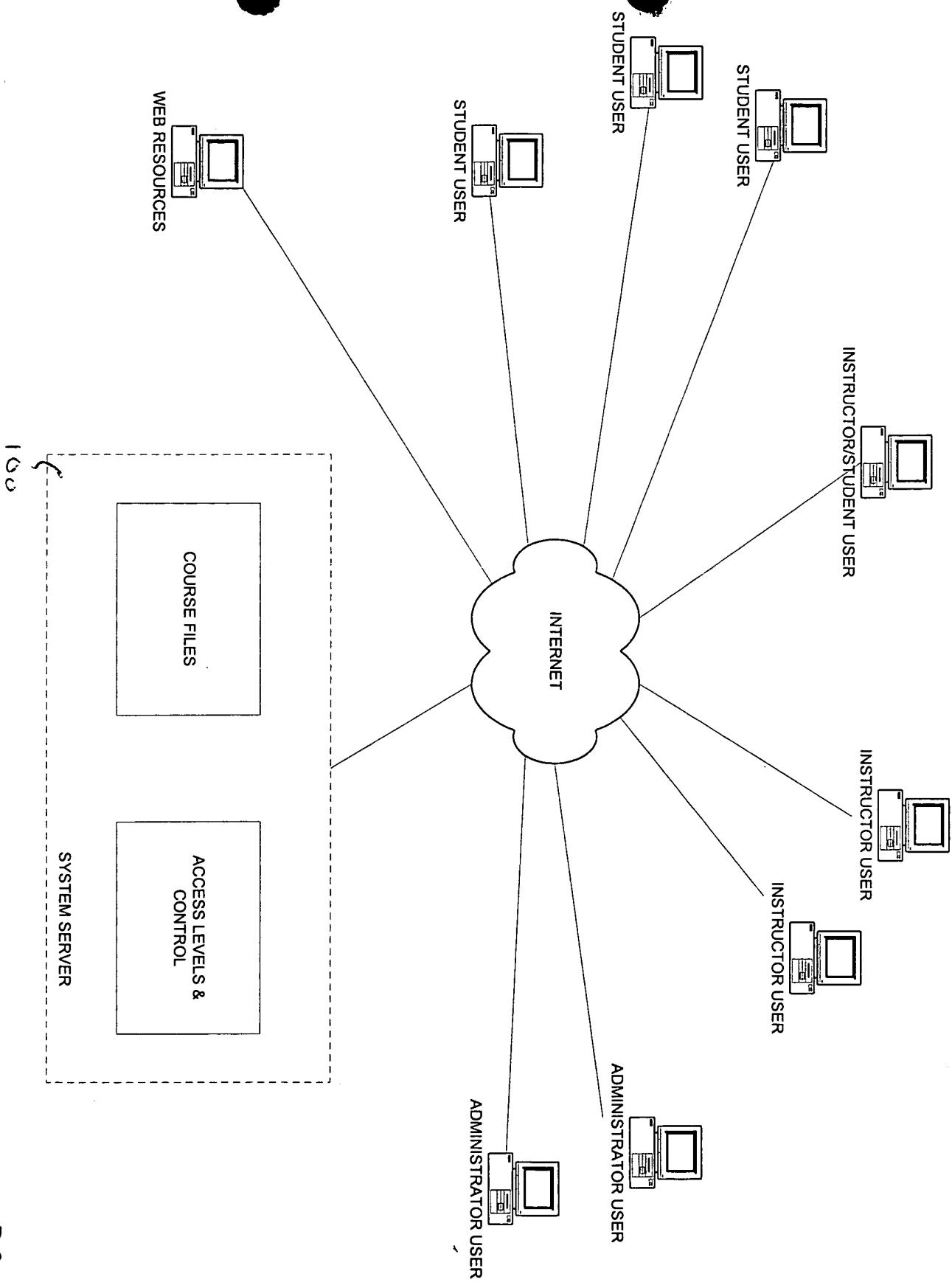
Butter.blackboard.com



- The link at the bottom of the page points back to the referring server using the location passed in the URL parameter to the first butter script.
- The authorization code, the order_id and a subset of the credit card digits (show_card) are passed back as parameters.
- The authorization code should be checked upon return by making an identical hash calculation. If the two hash values match, the order should be fulfilled, otherwise, and error should be shown.



Figure



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